Title V Air Operation Permit Renewal
Permit No. 0310047-021-AV

APPLICANT

The applicant for this project is JEA. The applicant's responsible official and mailing address are: Dr. James M. Chansler, P.E., Chief Operating Officer, JEA, Kennedy Generating Station, 21 West Church Street, Jacksonville, Florida 32202-3139.

FACILITY DESCRIPTION

The applicant operates the existing Kennedy Generating Station, which is located in Duval County at 4215 Talleyrand Avenue, Jacksonville, Florida.

This facility consists of two combustion turbines (CT Nos. 7 and 8) and a fuel oil storage tank farm. Both of the combustion turbines fire distillate oil and natural gas.

Emissions unit 015 is a combustion turbine (CT) manufactured by General Electric (Model PG 7241 FA) and is designated as CT No. 7. The unit began commercial operation on April 30, 2000. It is a simple cycle unit consisting of a nominal 170 MW (at 59°F) CT-electrical generator set equipped with Dry Low NO_X (DLN-2.6) combustors. CT No. 7 is a peaking unit used during peak demand times and emergencies. Exhaust gas exits a stack that is 24 feet in diameter and 90 feet tall.

Emissions unit 016 is a combustion turbine (CT) manufactured by the General Electric Company (Model PG7241 FA) and is designated as CT No. 8. CT No. 8 began commercial operation on April 16, 2009. It is a simple cycle unit consisting of a nominal 172 MW (at 59°F) CT-electrical generator set equipped with Dry Low NO_X (DLN-2.6) combustors. Exhaust gas exits a stack that is 18 feet in diameter and is 115 feet tall.

This facility also includes miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received May 21, 2012.

Draft/Proposed Title V Air Operation Permit issued August 15, 2012.

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 4911 – Electrical Generation.

Title III: The facility is not identified as a major source of hazardous air pollutants (HAP).

Title IV: The facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

CAIR: The facility is subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

GHG: The facility is identified as a major source of green house gas (GHG) pollutants.

PROJECT REVIEW

As part of the renewal, JEA requested several minor changes from limitations/requirements contained in the prior Title V permit. JEA's requests and the Department's responses are shown below:

1. Request. For Combustion Turbine 7 (EU 015), relax carbon monoxide testing frequency from annual to once every five years, similar to the testing requirement for Combustion Turbine 8.

   Response. Based on the allowable hours of operation and CO emissions limits for CT 8, the potential emissions are less than 100 tons per year. Therefore, testing prior to renewal is allowed by Rule 62-297.310(7), F.A.C. ~~However, based on the allowable hours of operation and the CO emissions limits for CT 7, the potential emissions are greater than 100 tons per year. Therefore, annual testing is required by Rule 62-297.310(7), F.A.C.~~ However, for CT 7, Permit No. 0310047-002-AC required lb/hr limit rather than annual 97.2 tpy to provide reasonable assurance that the proposed PSD avoidance was practically enforceable. The offer was made to allow JEA to add a CO monitor, which apparently was never accepted. Condition 26 of 0310047-002-AC specifically requires annual CO testing to help assure that PSD was/is not triggered for this project. Therefore, the requested change was not made.

2. Request. For Combustion Turbine 8 (EU 016), add language to footnote b of the emissions standards condition stating that the "pound per hour (lb/hr) limit will be demonstrated if required by a special compliance test" to clarify that annual stack testing is not required.

   Response. A review of past permitting actions shows that permit No. 0310047-018-AC revised footnote b. to clarify that compliance with the lb/hr NO_X emissions limit was only required during the initial compliance test. However, this clarification appears to have accidentally not been carried through into permit No 0310047-019-AC, which made other minor revisions to the original construction permit (No. 0310047-015-AC) for this unit. The footnote has been clarified to explain that compliance with the applicable lb/hr NO_X limit can be demonstrated for any 3-hour averaging period by converting CEMS data rather than through regular stack testing. Regardless of this clarification, it should be noted that the special testing provisions of Rule 62-297.310(7)b., F.A.C., continue to apply.

3. Request. Update Appendix I, List of Insignificant Emissions Units and Activities to reflect the actual Insignificant units currently at the site. (Several old tanks and black-start engines have been removed.)

   Response. Appendix I has been updated as appropriate.

4. Request. Delete Appendix U, List of unregulated Emissions Units and Activities, as there are no longer any activities at the site that meet this classification.

   Response. The activities that still exist at the facility that were previously listed as Unregulated Units have been moved to the list of Insignificant activities and Appendix U has been deleted.

CONCLUSION

This project renews Title V air operation permit No. 0310047-016-AV, which was effective on January 1, 2008. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210, 62-213 and 214, F.A.C.